



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/016,953 | 12/13/2001 | Eric Gouriou | 10019981-1 | 7369 |

7590

05/12/2005

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

| |
|----------|
| EXAMINER |
|----------|

NGUYEN BA, HOANG VU A

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2192

DATE MAILED: 05/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/016,953

Applicant(s)

GOURIOU ET AL

Examiner

Hoang-Vu A. Nguyen-Ba

Art Unit

2192

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to the amendment filed January 3, 2005.
2. Claims 1-27 remain pending.

Response to Amendments

3. Per Applicants' request, claims 1, 10, 19 and 21 have been amended.
4. The objection to the specification is withdrawn in view of Applicants' amendment to the specification to correct a minor typographical error.
5. The objection to claim 21 is withdrawn in view of Applicants' amendment to this claim to correct a minor informality.
6. The rejection of claims 8, 17 and 26 under 35 U.S.C. § 112, second paragraph as being unclear and indefinite is withdrawn after reconsideration of these claims in light of the indicated associated text in the specification.

Response to Arguments

7. Applicant's arguments filed January 3, 2005 have been fully considered but they are not persuasive. Following is the Examiner's response to Applicants' arguments.

With respect to claims 1, 10 and 19, Applicant essentially argues that Smith et al. does not anticipate the features of these claims because Smith et al. teachings which is similar to and thus suffers the same expensive memory costs of the dynamic binary instrumentation described in Applicant's background.

In response, the Examiner notes that in Figure 4, step 43, the process is instrumented with instruction code to copy the binary code and inserted before the original code. Thus, the process has been instrumented. Step 47, i.e., generate and insert reverse instructions is performed on a process which has been instrumented.

Therefore, the amended claims do not distinguish over Smith et al. and the rejection of these claims under 35 U.S.C. § 102(e) as being anticipated by Smith et al. is still proper and maintained.

Claim Rejections – 35 U.S.C. § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent,

except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language;

9. Claims 1-27 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,470,493 to Smith et al. (“Smith”).

Claims 1, 10 and 19

Smith discloses at least:

modifying selected text segment portions from said process which has been instrumented

(see at least Figures 2A, 2B and related discussion in the specification; note that prologue code in 2A has been changed to instrumented prologue code in 2B);

unmapping instrumented code space such that said instrumented code space is

inaccessible to said process (see Figure 4, step 47 and related discussion in the specification; as a result of the unwinding process, the instrumented code shown in 2B will no longer be accessible by the uninstrumented code); and

cleaning a call stack of said process by unwinding said call stack and resetting a storage location for a return pointer from said instrumented code space to uninstrumented code space wherein said cleaning is performed on said process which has been instrumented (see at least Figure 1, item 17; Figure 3, item 35; and related discussion in the specification).

Claims 2, 11 and 20

Rejections of base claims 1, 10 and 19 respectively are incorporated. Smith further discloses *wherein said instrumented code space is comprised of shared memory or memory in an address space of said process* (see at least Figure 1, item 15 – working memory – and related discussion in the specification).

Claims 3, 12 and 21

Rejections of base claims 1, 10 and 19 respectively are incorporated. Smith further discloses *wherein the step of resetting said storage location for said return pointer comprises:*

finding in said call stack said storage location of said return pointer (see at least Figure 1, item 17 and related discussion in the specification); and

changing the value of said storage location of said return pointer from said instrumented code space to uninstrumented code space (see at least Figure 1, item 17, “Calling P. Address” and related discussion in the specification).

Claims 4, 13 and 22

Rejections of base claims 1, 10 and 19 respectively are incorporated. Smith further discloses *wherein said return pointer is disposed in a renamed register* (see at least Figure 1, item 17 and related discussion in the specification).

Claims 5, 14 and 23

Rejections of base claims 1, 10 and 19 respectively are incorporated. Smith further discloses *wherein said return pointer is disposed in a memory location on said call stack* (see at least Figure 1, item 17 and related discussion in the specification).

Claims 6, 15 and 24

Rejections of base claims 1, 10 and 19 respectively are incorporated. Smith further discloses *wherein said return pointer is disposed in a preserved register* (see at least Figure 1, item 17 and related discussion in the specification).

Claims 7, 16 and 25

Rejections of base claims 1, 10 and 19 respectively are incorporated. Smith further discloses *wherein said return pointer is disposed in an alternate branch register* (see at least Figure 2B, item 25 and related discussion in the specification).

Claims 8, 17 and 26

Rejections of base claims 1, 10 and 19 respectively are incorporated. Smith further discloses *wherein said return pointer is not yet saved* (see at least Figure 1, item 33 and related discussion in the specification).

Claims 9, 18 and 27

Rejections of base claims 1, 10 and 19 respectively are incorporated. Smith further discloses *wherein said return pointer is disposed in a memory location of an operating system of said process* (see at least Figure 1, item 33 and related discussion in the specification).

Conclusion

10. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang-Vu "Antony" Nguyen-Ba whose telephone number is (571) 272-3701. The Examiner can normally be reached on Tuesday-Friday, 7:15 to 17:15.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam can be reached at (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script, reading "Anthony Nguyen-Ba".

**ANTONY NGUYEN-BA
PRIMARY EXAMINER**

Art Unit 2192

May 10, 2005